

or by an operator.

The second embodiment of the invention presents the particular advantage that the secondary tanks 130 to 137 are filled in masked time with respect to the spraying, this consequently allowing the cycle time to be reduced.

5 According to an advantageous aspect of the invention, the stations 140, 140', 141 and 141' are provided inside a spraying booth, while conveyors 152 and 152' are arranged outside this booth, for example at a different level. In that case, the tanks 130 to 137 are filled via a passage through the partition of this booth. According to a variant, the stations 140, 140', 141 and 141' may be  
10 arranged outside the booth where they are supplied with coating products, these stations being at least partly mobile in order to conduct the sub-assemblies 120 to 127 inside the booth by traversing a partition thereof, in order that the robots 110 to 117 can access the housings 140a to 140d and equivalent.

According to a variant of the invention (not shown), a station for  
15 temporary tank storage may be associated with each robot 110 to 117, each station comprising two housings for receiving two sub-assemblies mounted alternately on each robot. The embodiment represents the grouping of the stations for two robots, with four locations for receiving sub-assemblies, allowing a saving of space and a more attractive cost price. Whatever the  
20 embodiment considered, means for monitoring the temperature of the product in the principal tanks may be provided, such means being able to be activated permanently or just before the transfer towards the secondary tanks. Similarly, stirring means may be activated permanently or just before transfer.

According to a variant of the invention (not shown), applicable to the two  
25 embodiments described, the conveyors for displacing the principal tanks may be constituted by the conveyor 2 or 102, insofar as the principal tanks may be

supported by the toboggans 3 or 103, the movement of connection of the robots or the parts of the temporary storage stations being adapted accordingly.

The invention has been described with an installation for spraying liquid coating products. It is applicable to the spraying of all types of liquid products  
5 containing solvents, hydrosoluble or composed of two components, and to the spraying of pulverulent coating products.

The invention has been represented in the case of an installation for coating automobile vehicle bodies. However, it is applicable to the coating of all types of objects, particularly spare parts, by means of atomizers of all types,  
10 electrostatic or not, rotary or pneumatic.

The invention has been represented with multi-axis robots. It is applicable with any type of robot adapted to displace at least one atomizer opposite objects to be coated, in particular with machines of "reciprocator" type or of the type known from EP 0 720 515. The invention might also be carried out in an  
15 installation comprising a succession of manual coating stations.

In the case of an existing installation already comprising circulating or in the case of an installation provided for the spraying of so-called "current" products and so-called "rare" products used less often, circulating may be employed for supplying the atomizers with the products most often employed,  
20 while the device with principal tanks is used for the products used least often.

Whatever the variant considered, one or more atomizers mounted on a robot or a machine may be supplied from the same secondary tank.

According to a variant of the invention (not shown), the zones 53 and 54 for loading/unloading the principal tanks may be provided at two opposite ends  
25 of the booth, which avoids having to resort to a loop conveyor 52. This is also applicable to the second embodiment.